

# United States Patent and Trademark Office

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER OF PATENTS AND TRADEMARKS Washington, D.C. 20231 www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.	
09/283,770	03/31/1999	ROMY A. ACHITUV	IR-013	1443	
7:	590 02/26/2002				
DAVID R GRAHAM			EXAMINER		
1337 CHEWPO MILPITAS, CA			BUGG, GEORGE A		
			ART UNIT	PAPER NUMBER	
			2613		
			DATE MAILED: 02/26/2002		

Please find below and/or attached an Office communication concerning this application or proceeding.

4

Office Action Summary		Application No.	Applicant(s)				
		09/283,770	ACHITUV ET AL.	W			
		Examiner	Art Unit				
		George A Bugg	2613				
Period fo	The MAILING DATE of this communication app r Reply	pears on the cover sheet with the	e correspondence address				
THE N - Exten after : - If the - If NO - Failur - Any re earne	DRTENED STATUTORY PERIOD FOR REPLY MAILING DATE OF THIS COMMUNICATION. sions of time may be available under the provisions of 37 CFR 1.15 SIX (6) MONTHS from the mailing date of this communication. period for reply specified above is less than thirty (30) days, a reply period for reply is specified above, the maximum statutory period or et or to reply within the set or extended period for reply will, by statute eply received by the Office later than three months after the mailing d patent term adjustment. See 37 CFR 1.704(b).	36(a). In no event, however, may a reply be y within the statutory minimum of thirty (30) o will apply and will expire SIX (6) MONTHS from the application to become ABANDO	timely filed days will be considered timely, om the mailing date of this communic NED (35 U.S.C. § 133).	cation.			
Status 1)☐	Responsive to communication(s) filed on						
2a)⊠	· · · · <u> </u>	· is action is non-final.					
3)□	,—		prosecution as to the mer	rite ie			
3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213.  Disposition of Claims							
4)⊠ Claim(s) <u>1-24</u> is/are pending in the application.							
٠. 4	4a) Of the above claim(s) is/are withdraw	wn from consideration.					
5) Claim(s) is/are allowed.							
6)⊠	Claim(s) <u>1-24</u> is/are rejected.						
7)	Claim(s) is/are objected to.						
	Claim(s) are subject to restriction and/or on Papers	r election requirement.					
9) 🗌 ७	The specification is objected to by the Examine	r.					
10) The drawing(s) filed on is/are: a) accepted or b) objected to by the Examiner.							
	Applicant may not request that any objection to the	e drawing(s) be held in abeyance.	See 37 CFR 1.85(a).				
11)□ Т	he proposed drawing correction filed on	_is: a)  approved b) disapp	proved by the Examiner.				
If approved, corrected drawings are required in reply to this Office action.							
12)☐ The oath or declaration is objected to by the Examiner.							
Priority u	nder 35 U.S.C. §§ 119 and 120						
13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).							
a)[	a) ☐ All b) ☐ Some * c) ☐ None of:						
	1. Certified copies of the priority documents have been received.						
	2. Certified copies of the priority documents have been received in Application No						
<ul> <li>3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).</li> <li>* See the attached detailed Office action for a list of the certified copies not received.</li> </ul>							
14) 🗌 A	14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).						
<ul> <li>a) ☐ The translation of the foreign language provisional application has been received.</li> <li>15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.</li> </ul>							
Attachment	(s)						
2) Notice	e of References Cited (PTO-892) e of Draftsperson's Patent Drawing Review (PTO-948) nation Disclosure Statement(s) (PTO-1449) Paper No(s)	5) Notice of Informa	ary (PTO-413) Paper No(s).  Al Patent Application (PTO-152)	<b></b> ·			

Page 2

Application/Control Number: 09/283,770

Art Unit: 2613

# **DETAILED ACTION**

## Response to Amendment

- 1. Applicant's arguments filed on 2/5/02 have been fully considered but they are not persuasive. The examiner maintains his position that Kumar et al. meets the limitations of applicant's claims.
- 2. On page 8 applicant state that Kumar et al. does not teach or suggest a visual display of panoramic region in which visual context is provided for an active display. The examiner cannot agree. Given the interpretation that Figure 2, of Kumar et al., shows a panoramic image (204) where the images are visually displayed with context, (the circumstance which the images occurred, i.e. time and location). Moreover, in light of the applicant's own specification (page 12, line 34 through page 13, line 9) Kumar et al. teaches context images (i.e. a complete or partial previously displayed image), again see Figure 2, where overlap of 2001 and 2002 (or others) produce complete and partial previously displayed images.
- 3. Regarding the argument of claim 2, the same holds true, the context images of Kumar et al. are displayed in a predetermined order (i.e. based on location in the panoramic image).
- 4. Applicant's remarks regarding claims 3 and 4 have been considered.

  Considering Kumar's mosaic, the context image (2001) was at least part of active image 2002, and since 2002 was created and displayed later in time the current image (2002) has a portion that was displayed prior to the active image (i.e. the overlapped portion).

Art Unit: 2613

- 5. Again the examiner finds no convincing argument why the images in Kumar's mosaic are not exactly what applicant has disclosed and claimed as context images.
- 6. As for applicant's remarks, regarding the "clip image", of claims 10-12, as interpreted by the examiner the virtual views can be selected by the user and updated (Col. 2, Lines 35-42) and (Col. 11, Lines 14-32).
- 7. It is also the examiner's contention that the scene change, of claim 13, is equivalent to the branch point disclosed.
- 8. As for the remarks regarding the overlapping, as disclosed in claims 14 and 19, see examiner's arguments above.

### Claim Rejections - 35 USC § 102

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

- (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
- 10. Claims 1-25 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by U.S. Patent No. 5,963,664 to Kumar et al.

As for Claims 1, 13, 18, and 23-24, Kumar discloses (Fig. 2) a set of temporally sequential frames of visual data, each frame representing an image, defining a region, within a panoramic region. Further disclosed (Fig. 2) is the positioning of one or more images, with relationship to the spatial orientation of the panoramic region, while an active image is being displayed. In addition, (Fig. 1, Element 106) shows an output device, which could be any type of video display.

Art Unit: 2613

Kumar (Fig. 1) also shows the use of multiple cameras, which would provide at least two non-coincidental images, as well as a plurality of sets of temporally sequential frames, as further disclosed in Claim 13. Also disclosed in Claim 13 is the identification of a branch point, for the purpose of updating an image. Kumar discloses (Col. 17, Lines 13-33) a scene change detection scheme.

As for claim 25, note the scene change is detected between temporally sequential images, and the new set of frames is the updated set of frames (Col. 7).

Further disclosed in Claim 24, is a readable storage medium, on which is stored one or more computer programs, for producing a visual display, of a panoramic region. Kumar discloses (Col. 4, Lines 58-61) and (Col. 5, Lines 15-17) a computer that is programmed to function as an image processing system, and a video storage and retrieval system.

Claim 2 discloses one or more context images, being automatically displayed, in a predetermined manner. Kumar teaches (Fig. 7), (Col. 11, Lines 1-3) a hierarchical technique to register images.

Claims 3-4, disclose an order, in which context images are to be displayed.

Since the frames representing an image are processed sequentially, and a hierarchy for how those images are displayed, already exists, it is logical to assume that the context images would be displayed, as disclosed in Claims 3-4.

As for Claims 15 and 20, Kumar discloses (Col. 5, Lines 7-9) a single camera providing temporally sequential frames of visual data, while the camera pans across the scene, or "rotates at a fixed location".



Art Unit: 2613

As for Claim 16, Kumar discloses (Col. 4, Lines 58-61) and (Col. 5, Lines 15-17) a computer that is programmed to function as an image processing system, and a video storage and retrieval system.

In reference to Claims 5-12, Kumar discloses (Col. 4, Lines 58-61) and (Col. 5, Lines 15-17) a computer that is programmed to function as an image processing system, and a video storage and retrieval system. The use of computer software, and a memory, implies that past and present images can be designated, by user instruction, to perform all functions disclosed in Claims 5-12.

Although Claims 21-22 do not disclose user interaction, or image designation, by a user, they do refer to displaying context images, in a specific manner. It is therefore implied, that these displays could not take place, without instruction, and are rejected, for the same reasons as Claims 5-12.

Regarding Claims 14 and 19, Kumar teaches (Fig. 2, Element 204) that each overlapping section, of an image, is updated by the new image.

The fact that images can be displayed, while being produced, suggests that an active image is produced in real time.

#### Conclusion

11. THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not

Art Unit: 2613

mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

- 12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following patents are cited to show the state of the art, with respect to panoramic displays, and mobile images:
  - U.S. Patent No. 5,850,352 to Moezzi et al.
  - U.S. Patent No. 6,075,905 to Herman et al.
  - U.S. Patent No. 6,078,701 to Hsu et al.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to George A Bugg whose telephone number is (703) 305-2329. The examiner can normally be reached on Monday-Friday from 7:30 to 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher S Kelley, can be reached on (703) 304-4856. The fax phone number for the organization where this application or proceeding is assigned is (703) 308-5359.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

Art Unit: 2613

George A Bugg Examiner Art Unit 2613 Page 7

CHRIS KELLEY
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600